



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,854	08/04/2006	Michael Roberts	Q94187	4179
23373	7590	02/22/2008	EXAMINER	
SUGHRUE MION, PLLC			RIVERO, ALEJANDRO	
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037			2618	
			MAIL DATE	DELIVERY MODE
			02/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

AK

Office Action Summary	Application No.	Applicant(s)
	10/573,854	ROBERTS ET AL.
	Examiner	Art Unit
	Alejandro Rivero	2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 August 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 March 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 3/29/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. In this case, a copy of each cited foreign patent document and each non-patent literature publication or that portion which caused it to be listed, have not been provided.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or canceled from the claims:

- reception means for reading a channel to be employed by the broadcast service
- means for receiving otherwise than via the said channel scheduling information related to the broadcast service
- means for determining from the scheduling information a start time of the broadcast service on the channel
- means for determining from the scheduling information preparation time of the broadcast service and requiring transmission on the said channel prior to the said start time of the broadcast service

- means for inhibiting monitoring of the said channel at the reception means until a time determined by the said start time less the said preparation time
- means for inhibiting monitoring of the said channel comprising a software control means
 - software control means
 - device arranged so as to retrieve scheduling information from a service announcement phase of data supplied to the device
 - device wherein the scheduling information is arranged to be provided over signaling levels different from the service announcement phase
 - device wherein the data relating to the preparation time is delivered to the device during a service announcement phase
 - device wherein the preparation time includes time required by the network for counting the number of mobile devices requiring receipt of the broadcast session
 - device arranged so as to trigger uplink signal relating to the said counting upon commencement of monitoring of the notification channel
 - device wherein the broadcast service comprises a MBMS service
 - device wherein the said channel comprises a MBMS notification channel
 - reading a channel to be employed by the broadcast service
 - receiving, otherwise and via the said channel, scheduling information related to the broadcast service
 - determining from the scheduling information the start time of the broadcast service on the said channel

- determining from the scheduling information preparation time of the broadcast service
- transmitting on the said channel prior to the start of the broadcast service
- inhibiting monitoring of the said channel until a time determined by the start time less the said preparation time
- retrieving scheduling information from a service announcement phase of data supplied to the device
- scheduling information is arranged to be provided over signaling levels different from the service announcement phase
- data relating to the preparation time is delivered to the device during a service announcement phase
- preparation of time includes time required by the network for counting the number of mobile devices requiring receipt of the broadcast session
- a MBMS UTRAN network

No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several

views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is respectfully suggested by the examiner: DEVICE AND METHOD FOR SAVING POWER DURING MONITORING OF NOTIFICATION CHANNEL USING BROADCAST SCHEDULING INFORMATION.

4. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title. It should avoid

using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it contains the phrase "The present invention provides" (first line of Abstract paragraph), which can be implied. The abstract of the disclosure is further objected to because it contains the legal phraseology "means" and "said" (in lines 9, 10, 11, 13, 15, 16 and 17 of page 13 labeled Abstract). Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities:

In page 3 (line 1), the examiner respectfully suggests replacing "even the" with "even when the".

In page 3 (line 6), the examiner respectfully suggests replacing "can seeks" with "seeks" or "can seek".

In page 4 (line 29), the examiner respectfully suggests replacing "allows" with "allow".

In page 5 (line 12), the examiner respectfully suggests replacing "rated" with "related".

In page 5 (lines 18-20), the examiner respectfully suggests revision of the sentence since it appears to contradict the purpose of the invention, perhaps due to inadvertent typing error. The sentence states that the invention allows the mobile device to read the MBMS notification channel until services are about to take place, yet the invention appears to be directed to inhibiting the device from reading the MBMS notification channel until services are about to take place.

In page 5 (line 28), the examiner respectfully suggests replacing "maybe" with "may be".

Appropriate correction is required.

Claim Objections

6. Claims 6 and 16 are objected to because of the following informalities:

In claim 6 (line 3), the examiner respectfully suggests replacing "session" with "service" in order to maintain uniformity since in preceding claims only a broadcast service has been mentioned.

In claim 16 (line 3), the examiner respectfully suggests replacing "session" with "service" in order to maintain uniformity since in preceding claims only a broadcast service has been mentioned.

In claim 16 (line 2), the examiner respectfully suggests replacing "preparation of time" with "preparation time".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 4, 5, 11, 14, 15, 19, 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the service announcement phase" in lines 2-3.

There is insufficient antecedent basis for this limitation in the claim. For the purpose of

this examination, claim 4 will be treated as reciting "a service announcement phase", instead of the aforementioned phrase.

Claim 5 recites the limitation "the data" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this examination, claim 5 will be treated as reciting "data", instead of the aforementioned phrase.

Claim 11 recites the limitation "the broadcast service" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this examination, claim 11 will be treated as reciting "a broadcast service", instead of the aforementioned phrase.

Claim 14 recites the limitation "the service announcement phase" in line 3. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this examination, claim 14 will be treated as reciting "a service announcement phase", instead of the aforementioned phrase.

Claim 15 recites the limitation "the data" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this examination, claim 15 will be treated as reciting "data", instead of the aforementioned phrase.

Claim 19 recites the limitation "A mobile radio communications device substantially as hereinbefore described" (lines 1-2). The term "substantially" is a relative term which renders the claim indefinite since: it is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purpose of this examination, claim 19 will be treated as reciting "A

mobile radio communications device as hereinbefore described", instead of the aforementioned phrase.

Claim 20 recites the limitation "A method of operating a mobile radio communications device substantially as hereinbefore described" (lines 1-2). The term "substantially" is a relative term which renders the claim indefinite since: it is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purpose of this examination, claim 20 will be treated as reciting "A method of operating a mobile radio communications device as hereinbefore described", instead of the aforementioned phrase.

Claim 21 recites the limitation "A communication system substantially as hereinbefore described" (line 1). The term "substantially" is a relative term which renders the claim indefinite since: it is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.. For the purpose of this examination, claim 21 will be treated as reciting "A communication system as hereinbefore described", instead of the aforementioned phrase.

9. Claims 19, 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that they fail to point out what is included or excluded by the claim language.

Claims 19, 20 and 21 are omnibus type claims.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 1, 2, 4, 10 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Tatsumi et al. (US 2003/0078000 A1).

Consider claim 1, Tatsumi et al. disclose a mobile radio communications device arranged for receiving a broadcast service and including reception means for reading a channel to be employed by the broadcast service (paragraphs [0071]-[0082]), means for receiving otherwise than via the said channel scheduling information related to the broadcast service (paragraph [0012], [0093]-[0099] where Tatsumi et al. disclose a

mobile device receiving via a transmission apparatus (otherwise than the broadcast channel) a notice regarding preprogrammed (scheduled) program information and also receiving program tables), means for determining from the scheduling information a start time of the broadcast service on the channel (paragraphs [0096]-[0101] where Tatsumi et al. disclose a processor monitors broadcast start time from field F_{ST} from a program record generated when a program from a program table (scheduling information) was selected for viewing by the user), and means for determining from the scheduling information preparation time of the broadcast service and requiring transmission on the said channel prior to the said start time of the broadcast service (paragraphs [0096]-[0101], [0230]-[0232] where Tatsumi et al. disclose monitoring a start time determined from scheduling information and accounting therefrom for a preparation time period which allows the mobile device to become capable of receiving transmission of the broadcast selected by the user (hence requiring transmission) before the broadcast begins), and means for inhibiting monitoring of the said channel at the reception means until a time determined by the said start time less the said preparation time (paragraphs [0096]-[0101], [0230]-[0232] where Tatsumi et al. disclose monitoring a start time determined from scheduling information and subtracting therefrom a preparation time period which allows the mobile device to awake from a standby mode (tuner and video reproduction section are turned off, hence inhibiting monitoring of the channel) and become capable of receiving transmission).

Consider claim 2, Tatsumi et al. disclose all the limitations as applied to claim 1 above and also disclose wherein the means for inhibiting monitoring of the said channel

comprises a software control means (paragraphs [0088], [0096]-[0101], [0230]-[0232], figure 4, where Tatsumi et al. disclose a program for controlling the elements of the reception apparatus and monitoring a start time determined from scheduling information and subtracting therefrom a preparation time period which allows the mobile device to awake from a standby mode (tuner and video reproduction section are turned off, hence inhibiting monitoring of the channel) and become capable of receiving transmission).

Consider claim 4 (and the rejection under second paragraph of 35 U.S.C. 112 above), Tatsumi et al. disclose all the limitations as applied to claim 1 above and also disclose wherein the scheduling information is arranged to be provided over signaling levels different from a service announcement phase. (paragraph [0012], [0093]-[0099] where Tatsumi et al. disclose a mobile device receiving a notice regarding preprogrammed program information and program tables from a transmission apparatus, hence different from a service announcement phase).

Consider claim 10, Tatsumi et al. disclose all the limitations as applied to claim 1 above and also disclose wherein the device is a cellular phone (paragraphs [0006] and [0226]).

Consider claim 17, Tatsumi et al. disclose all the limitations as applied to claim 1 above and also disclose a communication system comprising a network including a mobile radio communications terminal as defined in Claim 1 (paragraphs [0012], [0085]-[0101], [0230]-[0232], figures 1, 4 and 31).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 3, 5, 8, 9, 11, 12, 13, 14, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi in view of Sarkkinen et al. (US 2003/0157949 A1).

Consider claim 11 (and the rejection under second paragraph of 35 U.S.C. 112 above), Tatsumi et al. disclose a method of operating a mobile radio communications device arranged for receiving a broadcast service and including the steps of reading a channel to be employed by the broadcast service (paragraphs [0071]-[0082]), receiving otherwise than via the said channel scheduling information related to the broadcast service (paragraph [0012], [0093]-[0099] where Tatsumi et al. disclose a mobile device receiving via a transmission apparatus (otherwise than the broadcast channel) a notice regarding preprogrammed (scheduled) program information and also receiving program

tables), determining from the scheduling information the start time of the broadcast service on the said channel (paragraphs [0096]-[0101] where Tatsumi et al. disclose a processor monitors broadcast start time from field F_{ST} from a program record generated when a program from a program table (scheduling information) was selected for viewing by the user), determining from the scheduling information preparation time of the broadcast service and which requires transmission on the said channel prior to the start of the broadcast service (paragraphs [0096]-[0101], [0230]-[0232] where Tatsumi et al. disclose monitoring a start time determined from scheduling information and accounting therefrom for a preparation time period which allows the mobile device to become capable of receiving transmission of the broadcast selected by the user (hence requiring transmission) before the broadcast begins) and further including the step of inhibiting monitoring of the said channel until a time determined by the start time less the said preparation time (paragraphs [0096]-[0101], [0230]-[0232] where Tatsumi et al. disclose monitoring a start time determined from scheduling information and subtracting therefrom a preparation time period which allows the mobile device to awake from a standby mode (tuner and video reproduction section are turned off, hence inhibiting monitoring of the channel) and become capable of receiving transmission).

Tatsumi et al. do not disclose receiving scheduling information via a channel employed by broadcast service.

Sarkkinen et al. disclose receiving scheduling information via a channel employed by broadcast service (paragraphs [0007], [0013], [0032]-[0036] where Sarkkinen et al. disclose, in a network providing a broadcast service, using a Paging

Indicator Channel (PICH) to transmit (and thus receiving at a UE) scheduling information among other broadcast service information, hence the channel is employed by the broadcast service).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the PICH to transmit (and thus receive via PICH at UEs) scheduling information as taught by Sarkkinen et al. in the method of Tatsumi et al. in order to inform UE user about forthcoming/ongoing services (including in new areas to where the UE has moved) and allowing the UE to receive such information even during IDLE mode (which is particularly advantageous in the case of battery-powered mobile devices (such as UEs, mobile phones) since power conservation extends battery service life), thus providing the user with information regarding current and future programming (as suggested by Sarkkinen et al. in paragraphs [0006]-[0007], [0013], [0032]-[0039], [0052]-[0054] and as suggested by Tatsumi et al. in paragraphs [0230]-[0232]).

Consider claim 12, Tatsumi et al. as modified by Sarkkinen et al. disclose all the limitations as applied to claim 11 above and also disclose wherein the said monitoring is inhibited by way of software control means (paragraphs [0088], [0096]-[0101], [0230]-[0232], figure 4 of Tatsumi et al., where Tatsumi et al. disclose a program for controlling the elements of the reception apparatus and monitoring a start time determined from scheduling information and subtracting therefrom a preparation time period which allows the mobile device to awake from a standby mode (tuner and video reproduction section

are turned off, hence inhibiting monitoring of the channel) and become capable of receiving transmission).

Consider claims 3, 5 (and the rejection under second paragraph of 35 U.S.C. 112 above), 13 and 15 (and the rejection under second paragraph of 35 U.S.C. 112 above), Tatsumi et al. disclose all the limitations as applied to claims 1 and 11 above and also disclose retrieving scheduling information from data supplied to the device (paragraphs [0093]-[0101] where Tatsumi et al. disclose receiving information (data) regarding programs available for broadcast in the form of program tables) and wherein data relating to the preparation time is delivered to the device (paragraphs [0093]-[0101], [0230]-[0232] where Tatsumi et al. disclose receiving information (data) regarding programs available for broadcast in the form of program tables and also disclose monitoring a start time determined from the received scheduling information (which relates to the preparation time since both the preparation time and the received start time will be used to determine a time for broadcast reception) and subtracting therefrom a preparation time period which allows the mobile device to awake from a standby mode (tuner and video reproduction section are turned off, hence inhibiting monitoring of the channel) and become capable of receiving transmission).

Tatsumi et al. do not specify receiving the information during a service announcement phase.

Sarkkinen et al. disclose receiving the information during a service announcement phase (paragraphs [0007], [0013], [0031]-[0038] and [0052]-[0053]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to receive information during a service announcement phase (for example, via PICH) as taught by Sarkkinen et al. in the device and method of Tatsumi et al. in order to inform the user about a variety of forthcoming/ongoing available services (such as MBMS services and services provided in a new area to where the UE has moved, which is advantageous in that the user can enjoy multiple types of media broadcast) and allowing the UE to receive such programming information even during IDLE mode (which is particularly advantageous in the case of battery-powered mobile devices (such as UEs, mobile phones) since power conservation extends battery service life) (as suggested by Sarkkinen et al. in paragraphs [0002], [0006]-[0007], [0013], [0016], [0032]-[0039], [0052]-[0054] and as suggested by Tatsumi et al. in paragraphs [0230]-[0232]).

Consider claims 8, 9 and 18, Tatsumi et al. disclose all the limitations as applied to claims 1 and 17 above and also disclose a broadcast service (paragraph [0072]), a broadcast channel (paragraphs [0071]-[0082]) and a network (paragraphs [0085]-[0095]).

Tatsumi et al. do not specify MBMS service (as in claim 8), a MBMS notification channel (as in claim 9) and a MBMS UTRAN (as in claim 18).

Sarkkinen et al. disclose MBMS service, a MBMS notification channel (PICH) and a MBMS UTRAN (paragraphs [0002], [0013], [0016], [0032]-[0037]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a MBMS notification channel of a MBMS UTRAN to notify a user

of MBMS services as taught by Sarkkinen et al. in the device and system of Tatsumi et al. in order to inform the user about a variety of forthcoming/ongoing available services (such as MBMS services and services provided in a new area to where the UE has moved, which is advantageous in that the user can enjoy multiple types of media broadcast). Further, by using the notification channel (PICH), as used in the UTRA network of Sarkkinen et al., the UE can receive such MBMS programming information even during IDLE mode (which is particularly advantageous in the case of battery-powered mobile devices (such as UEs, mobile phones) since power conservation extends battery service life) (as suggested by Sarkkinen et al. in paragraphs [0002], [0006]-[0007], [0013], [0016], [0032]-[0039], [0052]-[0054] and as suggested by Tatsumi et al. in paragraphs [0230]-[0232]).

Consider claim 14 (and the rejection under second paragraph of 35 U.S.C. 112 above), Tatsumi et al. as modified by Sarkkinen et al. disclose all the limitations as applied to claim 11 above and also disclose wherein the scheduling information is arranged to be provided over signaling levels different from a service announcement phase. (paragraph [0012], [0093]-[0099] of Tatsumi et al., where Tatsumi et al. disclose a mobile device receiving a notice regarding preprogrammed program information and program tables from a transmission apparatus, hence different from a service announcement phase).

14. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi et al. in view of Sarkkinen et al. and 3GPP TR 25.992 V1.3.0 (2003-01), hereinafter 3GPP 25.992.

Consider claim 6, Tatsumi et al. disclose all the limitations as applied to claims 1 above and also disclose a preparation time (paragraphs [0230]-[0232] where Tatsumi et al. disclose a standby mode).

Tatsumi et al. do not disclose including time required by the network for counting the number of mobile devices requiring receipt of the broadcast session.

Sarkkinen et al. disclose a number of mobile devices requiring receipt of MBMS services in a network (paragraphs [0002], [0006], [0013], [0016], [0031]-[0037] where Sarkkinen et al. disclose receiving scheduling information and idle mode).

3GPP 25.992 discloses a network counting a number of mobile devices requiring a broadcast session before transmitting the broadcast service in order to determine a method for transmission (item 1.2 of section 6.1 on pages 7-8 and section 6.2.2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to account for the time required to count the number of mobile devices (which is a time period occurring prior to transmission) requiring receipt of a broadcast service as taught by 3GPP 25.992 in a network with plural mobile devices requiring receipt of MBMS services as taught by Sarkkinen et al. in the device and method of Tatsumi et al. in order to remain in a standby/idle mode during a period of time when a broadcast will not yet be received (since counting is performed prior to transmission, broadcast will not yet be received) thus conserving power at the mobile device (which is particularly advantageous in the case of battery-powered mobile devices (such as UEs, mobile phones) since power conservation extends battery service life) (as suggested by Sarkkinen et al. in paragraphs [0002], [0006]-[0007], [0013], [0016], [0032]-[0039],

[0052]-[0054] and as suggested by Tatsumi et al. in paragraphs [0230]-[0232] and as suggested by 3GPP 25.992 in section 5 item 19 of pages 6-7, section 5.1 item 4 of page 7, section 6.1 items 1.2-1.7 of pages 7-8, section 6.2.2 of page 8).

Consider claim 16, Tatsumi et al. as modified by Sarkkinen et al. disclose all the limitations as applied to claim 11 above and also disclose a preparation time (paragraphs [0230]-[0232] of Tatsumi et al., where Tatsumi et al. disclose a standby mode). Sarkkinen et al. also disclose a number of mobile devices requiring receipt of MBMS services in a network (paragraphs [0002], [0006], [0013], [0016], [0031]-[0037] where Sarkkinen et al. disclose receiving scheduling information and idle mode).

Tatsumi et al. do not disclose including time required by the network for counting the number of mobile devices requiring receipt of the broadcast session.

3GPP 25.992 discloses a network counting a number of mobile devices requiring a broadcast session before transmitting the broadcast service in order to determine a method for transmission (item 1.2 of section 6.1 on pages 7-8 and section 6.2.2).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to account for the time required to count the number of mobile devices (which is a time period occurring prior to transmission) requiring receipt of a broadcast service as taught by 3GPP 25.992 in a network with plural mobile devices requiring receipt of MBMS services as taught by Sarkkinen et al. in the device and method of Tatsumi et al. as modified by Sarkkinen et al. in order to remain in a standby/idle mode during a period of time when a broadcast will not yet be received (since counting is performed prior to transmission, broadcast will not yet be received) thus conserving

power at the mobile device (which is particularly advantageous in the case of battery-powered mobile devices (such as UEs, mobile phones) since power conservation extends battery service life) (as suggested by Sarkkinen et al. in paragraphs [0002], [0006]-[0007], [0013], [0016], [0032]-[0039], [0052]-[0054] and as suggested by Tatsumi et al. in paragraphs [0230]-[0232] and as suggested by 3GPP 25.992 in section 5 item 19 of pages 6-7, section 5.1 item 4 of page 7, section 6.1 items 1.2-1.7 of pages 7-8, section 6.2.2 of page 8).

15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi et al. in view of Sarkkinen et al. and 3GPP 25.992 as applied to claim 6 above, and further in view of Sarkkinen et al. (US 2003/0119533 A1), hereinafter Sarkkinen-533.

Consider claim 7, Tatsumi et al. as modified by Sarkkinen et al. and 3GPP 25.992 disclose all the limitations as applied to claim 6 above and also disclose monitoring the broadcast channel (paragraphs [0230]-[0232] of Tatsumi et al.), receiving a notification (notification channel) indicating a start (commencement) of broadcast data transmission (sections 5 and 5.1 of pages 6-7 of 3GPP 25.992) and counting a number of mobile devices requiring service (item 1.2 of section 6.1 on pages 7-8 and section 6.2.2 of 3GPP 25.992).

Tatsumi et al. as modified by Sarkkinen et al. and 3GPP 25.992 do not specify triggering uplink signal relating to counting.

Sarkkinen-533 disclose causing (triggering) uplink signaling relating to the counting (paragraphs [0003], [0011]-[0012], [0074]-[0087], where Sarkkinen-533

disclose when CN is preparing for a multicast, sending a MULTICAST STATUS REQUEST and the RNC responds with MULTICAST STATUS RESPONSE containing information from a MULTICAST AREA UPDATE or other messages from the UE which indicate that the UE is within coverage area and thus track mobility of the UE which can be used for counting those UEs subscribed to a multicast service).

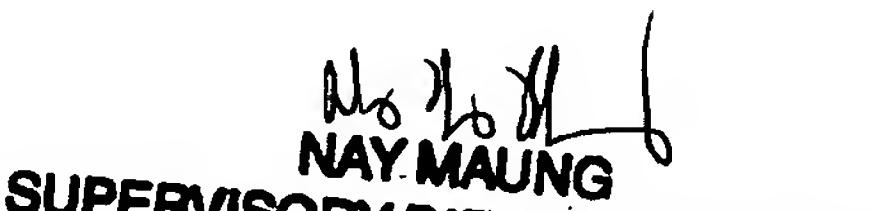
Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to trigger uplink signal relating to counting as taught by Sarkkinen et al. in the device of Tatsumi et al. as modified by Sarkkinen et al. and 3GPP 25.992 in order to allow the network to track (count) the number of mobile devices subscribed to a broadcast service and therefore use the radio interface more efficiently by sending multicast data only to cells with subscribed UEs and by choosing appropriate resources and parameters for radio bearers according to the number of subscribed mobile devices (as suggested by Sarkkinen et al. in paragraphs [0003]-[0005], [0010]-[0016] and as suggested by 3GPP 25.992 in section 3.1 (definition of "tracking" on page 6), section 5 item 19 of pages 6-7, section 5 item 16 of page 7, section 5.1 items 1-4 of page 7, section 6.1 items 1.2-1.7 of pages 7-8, sections 6.2.2-6.2.4 of page 8).

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alejandro Rivero whose telephone number is 571-272-2839. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR


NAY MAUNG
SUPERVISORY PATENT EXAMINER